

Part A: Modelling a Loan Application Process



Weight:	20%
Due:	11:59 pm Saturday 26 August 2023 (end of Week 5)

Assignment Task

Your team (maximum of four (4) members) has been tasked by a bank to model their home loan application and assessment process, and to appraise its suitability for process automation. Key stakeholders have met and agreed on the *Process Description* below.

Your team is expected to produce the following deliverables:

1. A complete process model, defined in the *BPMN* language, fully detailing the control-flow, data and resource perspectives. The model is to be exported as a *.bpmn* file and included in your submission.
2. A report that:
 - (a) shows the completed process model in graphical format,
 - (b) briefly summarises the process semantics (0.5 – 1 page),
 - (c) provides an informal appraisal of the potential improvements and/or benefits that automating the entire process may deliver (1 – 2 pages),
 - (d) lists each data object, and provides an assumed content for each (i.e. detail of its data members or fields). For example, a loan application may contain an applicant name, address, requested loan amount, and so on,
 - (e) nominates four individual tasks that may be candidates for automation within a Business Process Management System (over and above the potential automation of the entire process). This means the complete automation, supported within a BPMS, of a task that is currently performed manually.

Please read this entire document very carefully.

Process Description

The loan assessment process begins when an applicant submits a loan application. While applicants may populate an online form with their data prior to submission, the form must be printed and signed before being submitted. Once received, the application is assigned a Loan Assistant, who provides the application with a unique identification number, and then checks the application for completeness (i.e. no missing information). If it is incomplete, the application is returned to the applicant, who is required to add the missing information and

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then return the complete application to the bank. This rework will continue until the application has been verified by the Loans Assistant as complete. If the applicant fails to return their application within 5 working days of a request for more information, the loan application is immediately cancelled by the Loans Assistant, and the applicant is informed of the cancellation.

Once the application is deemed complete, it is assigned to a Loans Assessor, who initiates both a credit history check (which is performed by a Finance Assessor) and a property appraisal (which is performed by a Property Valuer). Using the results of those tasks, the Loans Assessor performs a risk assessment, resulting in a calculated risk weighting. Once the risk assessment has been completed, the applicant's eligibility for the loan is formally assessed by a Loans Assessor, who makes a decision on eligibility using all available data (i.e. the application, credit report, property appraisal and risk assessment). If the application fails eligibility, it is rejected by the Loans Assessor. Otherwise, it is approved by the Loans Assessor, and then an acceptance package is prepared, printed and sent to the applicant.

The acceptance package includes a repayment agreement, which the applicant needs to sign and return to the bank. The repayment agreement includes a calculated monthly repayment amount. If the applicant fails to return the signed agreement within 14 days, the offer is rescinded, and the application is cancelled by the Loans Assessor. Otherwise, when the agreement is returned, it is checked by the Loans Assessor to verify that the applicant has agreed to both the conditions of the loan and to the repayment schedule. If the applicant did not agree to both the loan conditions and the repayment schedule, the application is cancelled by a Loans Assessor. Otherwise, the case is then forwarded to another Loans Assessor (i.e. not the same Loans Assessor as the one who originally handling the case), who confirms that the verification has been performed correctly and that all other assessment decisions were valid. If the application is validated successfully, the application is finally approved. If the assessment is deemed to be invalid, the application is rejected.

An approved loan application also offers an applicant the opportunity to apply for a *home insurance plan*, a *life insurance plan*, and a *bank credit card* (at a discounted interest rate for the first twelve months). After the acceptance pack is sent to the applicant:

- if they have indicated in their application that they are interested in a home insurance plan, a home insurance quote is prepared by an Insurance Sales Representative and sent separately to the applicant.
- if they have indicated in their application that they are interested in a life insurance plan, a life insurance quote is prepared by an Insurance Sales Representative and sent separately to the applicant.
- if they have indicated in their application that they are interested in a credit card, a credit card quote is prepared by a Financial Officer and sent separately to the applicant.

The acceptance of any of the home insurance, life insurance or credit card quotes by the applicant and any subsequent activities involved in fulfilling those quotes falls outside the scope of this loan assessment process.

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At any time while the case is active, the applicant may choose to cancel the application by informing the Loans Assessor responsible for the case, who will take the appropriate action.

For all cases, after an application is approved, cancelled or rejected, the application is archived and a letter detailing the outcome is produced and sent to the applicant before the process instance finally completes.

Once the application is deemed complete (i.e. the Loan Assistant considers the application to contain all required information), each application is managed by the same Loans Assessor (i.e. the one that receives the original submission), except for the final approval, which is performed by a different Loans Assessor as explained above.

All interactions between the applicant and the bank are by post unless otherwise indicated. All activities are paper based.

No process description is ever complete. If you have any questions or seek any clarification, please ask them in the *#assessment* channel of the unit's Slack workspace.

The process model to be developed for this process is a key communication artifact, so must be syntactically and semantically correct (i.e. it must match the description to the greatest degree possible). It should also be of high pragmatic value. It must correctly model all resources and all data objects. Finally, the control-flow must be as efficient as possible.

Recommended Modelling Tool

While you are free to use any modelling tool of your choice, it is highly recommended that you use *Signavio*, which is browser based, free, easy to use, and easy to export your model in both graphical and XML formats. If you are unfamiliar with *Signavio*, please refer to the separate *Signavio How-To* document in the assignment materials.

Submission Requirements

One member of the team is to submit a **single** zip file, via the *Assignment Submission* link on IFN653 Canvas Assessment Page, that contains:

- A single file (*.bpmn*), which contains the exported XML representation of your process model
 - A single file in PDF format (*.pdf*), which includes all the report deliverables described in the *Assignment Tasks* section above.
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Additional Information

- **LATE SUBMISSIONS:** According to QUT policies, submissions past the deadline will **NOT** be marked, and will thus attract a mark of 0/100. Therefore, you are strongly advised to submit your report, even if it is a draft only, by the due date.
- **ACADEMIC HONESTY:** Any action or practice on your part which would defeat the purposes of assessment is regarded as academic dishonesty. The penalties for academic dishonesty are provided in the Student Rules. For more information consult the Academic Integrity Kit available on the unit Blackboard site, and the QUT Library resources for avoiding plagiarism.
- **GROUP FORMATION:** You may choose to form a group of 2 students*. Group members who work closely as a team and actively and equally contribute to the assignment work will receive the *same* group mark for their assignment. Group members who fail to make an active and equal contribution to the assignment work will be assessed *only* on the portion of the assignment work they produce.

Students are recommended to form groups based on their own contacts, or by posting a request to the *#seeking-assignment-group* Slack channel.

- **GROUP DISPUTES:** Groups are entirely responsible for resolving their own group disputes. The teaching team will **NOT** become involved in these disputes.
- **GETTING FEEDBACK:** The teaching team will be available to answer *specific* questions about the assignment but **cannot pre-mark** assignments. The teaching team will **NOT** read report drafts and review detailed models prior to the submission of the assignment. Detailed feedback will be provided in written form, when the marker returns the marked assignment back to the students.

Appendix A: Declaration Template

By submitting this assignment, I am/We are aware of the University rule that a student must not act in a manner which constitutes academic dishonesty as stated and explained in the QUT Manual of Policies and Procedures. I/We confirm that this work represents my individual/our team's effort, I/we have viewed the final version and does not contain plagiarised material.

Full Name	Student No.	Signature

* you may also choose to complete the assignment individually if you wish.